IN THE SPECIFICATION

Please replace the paragraph beginning at page 1, line 9, with the following rewritten paragraph:

The present invention in general relates to a SIMD type processor, a method and apparatus for parallel processing, a method and apparatus for image processing, devices that use the SIMD type processor or the parallel processing apparatus, a method and apparatus for image processing, and a computer-readable recording medium that records computer program for making a computer execute these methods according to the present invention. ~~More particularly, this invention relates to a technology of carrying out parallel processing of high priority order with priority.~~

Please replace the paragraph beginning at page 1, line 22, with the following rewritten paragraph:

Conventionally, a processor carries ~~has carried~~ out various kinds of processing in a computer. The processor fetches an instruction to be executed from a memory, decodes this instruction, and then executes the decoded instruction. In this way, the processor repeats ~~has repeated~~ the processing of a set of instructions many times. Based on a combination of various kinds of instructions, the processor can execute a desired processing according to a program.

Please replace the paragraph beginning at page 2, line 12, with the following rewritten paragraph:

Fig. 32 is a schematic block diagram showing an example of a portion that becomes the center of arithmetic processing of the conventional processor. A processor 3200 includes an execution unit 3203 consisting of an ALU (arithmetic logic unit) 3201 and a register 3202,

and a controller 3204 for giving a processing instruction to the execution unit 3203 and controlling the execution unit 3203 and the like. The processor 3200 inputs data to be processed from the outside of the processor, processes the data, and outputs ~~output~~ the processed data.

Please replace the paragraph beginning at page 2, line 22, with the following rewritten paragraph:

A Von-Neumann-type processor is effective in the sequential processing for sequentially carrying out [[a]] processing by reflecting data and past calculation results stored in ~~a~~ memory. An example of an application of a processor that carries out the Von-Neumann-type processing will be explained based on a digital multi-functional apparatus for carrying out various image processing.

Please replace the paragraph beginning at page 3, line 4, with the following rewritten paragraph:

Fig. 33 is a block diagram showing an example of a hardware structure of a digital multi-functional apparatus relating to a prior-art technique. The digital multi-functional apparatus is constructed of two portions of a copying portion (a copier portion) and other additional units as shown in Fig. 33. The copier portion is formed by a series of parts including a reading unit 3301, an image processing unit 3302, a video control section 3303, a writing unit 3304, a memory control unit 3305, and a memory module 3306. The additional parts are a facsimile control unit 3312, a printer control unit 3313, and a scanner control unit 3314 that are additionally connected ~~connect~~ to the copier portion via a mother board 3311. Based on this structure, each function of the digital multi-functional apparatus is achieved.

Please replace the paragraph beginning at page 11, line 7, with the following rewritten paragraph:

It is [[an]] another object of the present invention to provide a technology with which it is possible to carry out ~~an~~ optimum image processing in ~~of~~ a multi-function system as a whole, while effectively utilizing resources of the multi-function system ~~that achieves multi functions~~.

Please replace the paragraph beginning at page 21, line 10, with the following rewritten paragraph:

Fig. 25 is a block diagram showing a structure of a facsimile control unit of the image processing apparatus relating to the third embodiment.

Please replace the paragraph beginning at page 33, line 5, with the following rewritten paragraph:

Based on the above-described structure, the SIMD type processor 100 can not only be utilized as a general-purpose parallel processing processor, but also can improve the processing speed of this processor by storing the processing programs inside the processor. Further, as the necessary processing programs can be used in combination, the SIMD type processor 100 can be used as what is called a programmable processor, with extreme improvement in the convenience of the processor. Depending on the contents of the interruption processing, the contents of the program RAM 103 may also be stored in the data RAM 104 as the suspension information.

Please replace the paragraph beginning at page 33, line 17, with the following rewritten paragraph:

As the data RAM 104 stores parameters corresponding to the processing programs, it is possible to manage the programs based on the address assignment instead of stacking the programs. Fig. 7A and Fig. 7B are concept diagrams showing an example of a state of using the data RAM 104. Fig. 7 (a) shows a state before storing suspension information, and Fig. 7 (b) shows a state after storing the suspension information. As shown in these diagrams, it is possible to store the suspension information at an optional position by assigning an address.

Please replace the paragraph beginning at page 99, line 13, with the following rewritten paragraph:

Further, according to the present invention, there is provided a copier including the SIMD type processor according to any one of the above inventions or the parallel processing apparatus according to any one of the above inventions. Therefore, it is possible to make the copier for carrying out a parallel processing of image data execute an interruption processing. As a result, there is an effect that it is possible to obtain a copier capable of efficiently carrying ~~carry~~ out [[a]] parallel processing.

Please replace the paragraph beginning at page 99, line 22, with the following rewritten paragraph:

Further, according to the present invention, there is provided a printer including the SIMD type processor according to any one of the above inventions or the parallel processing apparatus according to any one of the above inventions. Therefore, it is possible to make the printer for carrying out a parallel processing of image data execute an interruption processing.

As a result, there is an effect that it is possible to obtain a printer capable of efficiently carrying ~~carry~~ out [[a]] parallel processing.